

Barriers to and Facilitators of Recruitment of Adult African American Men for Colorectal Cancer Research: An Instrumental Exploratory Case Study

Charles R. Rogers, PhD¹; Phung Matthews, PharmD¹; Ellen Brooks, BS¹; Nathan Le Duc, BS¹; Chasity Washington, MPH²; Alicia McKoy, MHA²; Al Edmonson³; LaJune Lange, JD⁴; and Michael D. Fetters, MD⁵

QUESTION ASKED: What participant recruitment approaches were successful and unsuccessful in enrolling African American men into a qualitative multistate study of attitudes toward screening for colorectal cancer (CRC)?

SUMMARY ANSWER: Community involvement and culturally tailored marketing materials facilitated recruitment. Barriers to recruitment included limited access to public spaces, transportation difficulties, and historically grounded medical mistrust that has fostered hesitancy by the target population to participate in clinical and cancer-focused research studies.

WHAT WE DID: We used an instrumental exploratory case study design to examine barriers to and facilitators of the recruitment of African American men into our group's prior qualitative multistate study of attitudes to CRC screening in this population. We reviewed study correspondence and written documentation of procedures used in the parent study, critically examined the participant recruitment approaches used, evaluated which were successful and unsuccessful, and explored possible reasons for success or lack thereof.

WHAT WE FOUND: Prioritizing community relationship building, partnering with community leaders and gatekeepers, and using culturally tailored marketing materials can successfully overcome barriers to the recruitment of African American men into medical research studies. The recruitment materials used varied by state, as shown in Table 1. The provision of culturally appropriate food, chosen to not exacerbate health disparities and with sensitivity to dietary restrictions, was another important enabler of recruitment that helped to overcome trust barriers.

BIAS, CONFOUNDING FACTORS, DRAWBACKS: Recruitment strategies in the parent study were solely focused on African American men. The research team deemed this focus critical because this population remains significantly underrepresented in biomedical research. The parent study was not a clinical trial but rather a qualitative study of attitudes to CRC screening. Qualitative studies, including this one, may limit data completeness because of the use of a face-to-face data-collection approach that depends on participants' willingness to share information and experiences.

REAL-LIFE IMPLICATIONS: Mortality from CRC is 47% higher among non-Hispanic Black and African American men compared with non-Hispanic White men. Interventions to increase the uptake of CRC screening in this population are urgently needed. Historical events such as the Tuskegee Study of Untreated Syphilis have sown distrust between African Americans, researchers, and the medical community, and fostered reluctance to participate in biomedical research. Economic barriers such as lack of transportation and potential lost wages are also obstacles to research participation by underrepresented populations. Successful strategies for recruiting underrepresented minorities into research studies often incorporate community and cultural engagement to foster relationships of trust between research teams and minority communities. To our knowledge, no prior published reports have specifically focused on strategies for recruiting African American men across multiple states for cancer-specific research. Our findings support and extend the literature on the foundational importance of trust between communities and research teams for the successful recruitment of African American men into research studies and clinical trials.

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CORRESPONDING AUTHOR

Charles R. Rogers, PhD, MPH, MS, MCHES, Department of Family and Preventive Medicine, 375 Chipeta Way, Suite A, Salt Lake City, UT 84108; Twitter: @crrrogersPhD; e-mail: Charles.Rogers@utah.edu.

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Charles R. Rogers, PhD, MPH, MS¹; Phung Matthews, PharmD¹; Ellen Brooks, BS¹; Nathan Le Duc, BS¹; Chasity Washington, MPH²; Alicia McKay, MHA²; Al Edmonson³; LaJune Lange, JD⁴; and Michael D. Fetters, MD⁵

abstract

PURPOSE Racial and ethnic minorities remain underrepresented in research and clinical trials. Better understanding of the components of effective minority recruitment into research studies is critical to understanding and reducing health disparities. Research on recruitment strategies for cancer-specific research—including colorectal cancer (CRC)—among African American men is particularly limited. We present an instrumental exploratory case study examining successful and unsuccessful strategies for recruiting African American men into focus groups centered on identifying barriers to and facilitators of CRC screening completion.

METHODS The parent qualitative study was designed to explore the social determinants of CRC screening uptake among African American men 45-75 years of age. Recruitment procedures made use of community-based participatory research strategies combined with built community relationships, including the use of trusted community members, culturally tailored marketing materials, and incentives.

RESULTS Community involvement and culturally tailored marketing materials facilitated recruitment. Barriers to recruitment included limited access to public spaces, transportation difficulties, and medical mistrust leading to reluctance to participate.

CONCLUSION The use of strategies such as prioritizing community relationship building, partnering with community leaders and gatekeepers, and using culturally tailored marketing materials can successfully overcome barriers to the recruitment of African American men into medical research studies. To improve participation and recruitment rates among racial and ethnic minorities in cancer-focused research studies, future researchers and clinical trial investigators should aim to broaden recruitment, strengthen community ties, offer incentives, and use multifaceted approaches to address specific deterrents such as medical mistrust and economic barriers.

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BACKGROUND

Mortality from colorectal cancer (CRC) is 47% higher among non-Hispanic Black and African American men compared with non-Hispanic White men.¹ It is vital that interventions are developed to increase CRC screening uptake in this population.

Low participation by African Americans in research and clinical trials is widely attributed to recruitment and retention barriers.²⁻¹⁰ Two systematic reviews^{5,9} found that the main barriers were medical mistrust, fear for safety, and concern about being a guinea pig. Historical events that have sown distrust between African Americans, researchers, and the medical community, such as the Tuskegee Study of Untreated Syphilis, are well documented^{9,11-18} and remain on the

minds of African Americans today.^{7,9,19} African Americans believe that the risks of research participation are high and are not inclined to believe that researchers prioritize their well-being.^{5,7-9,20}

Economic barriers (eg, lack of transportation, need for child care, and potential lost wages) are also significant obstacles to research participation for individuals of color.^{5,21,22} Methods of attenuating these burdens include offering monetary incentives or participation in a random prize drawing.^{3,10,23}

Successful strategies for recruiting underrepresented minorities into research studies and clinical trials often incorporate cultural engagement and foster relationships and trust between research teams and minority communities through active community

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engagement.^{2,8,9,11,24-26} Respectful participant-researcher communication and transparency about research goals, intentions, and outcomes are key elements in removing the cultural, logistical, and social barriers that confound many researchers' well-intentioned efforts. Partnering with local communities, churches, and community-based organizations can help to overcome barriers of medical mistrust and fear for safety^{2,6,10,27-30} and build credibility and trust.^{4,5,8,9,31}

Community-based participatory research is a multipronged approach to equitably involving researchers, community members, and others in research^{27,32} by establishing communities as full partners both in designing recruitment strategies and in the research itself.^{10,33} The community-based participatory research approach has achieved success in recruiting minority research participants; in one case, more than 300 African American participants, 52% of whom were male, were recruited into a CRC screening trial.^{26,27}

To our knowledge, no published reports have specifically focused on strategies for recruiting African American men across multiple states for cancer-specific research. Because of variations in states' demographics (eg, smaller populations of African American men), multistate recruitment using community-based strategies may promote greater enrollment of diverse population subsets. Limitations to this approach, however, may include lack of time, personnel, and funds, and difficulty developing trusting relationships.³⁴⁻³⁶ Our research aimed to address this gap in the literature by analyzing the strategies used to recruit African American men to a qualitative study of attitudes to CRC screening.

METHODS

Design

We used an instrumental exploratory case-study design to examine the barriers to and facilitators of recruitment into a qualitative CRC screening-promotion study that used a comprehensive strategy to enroll African American men into 11 focus groups across three states. An instrumental exploratory case study seeks to use a particular case to provide a general understanding of a phenomenon by asking questions that are used to develop a framework.³⁷⁻⁴⁰

Parent Study

Rogers et al⁴¹ designed a National Cancer Institute (NCI)-funded qualitative study that sought to explore the social determinants of CRC screening uptake in African American men. Recruitment, data collection, and data analysis took place in 2019. In accordance with the NIH's Single Institutional Review Board (IRB) Policy for Multi-Site Research,⁴² the study was approved by the University of Utah IRB.

The IRB at the University of Utah approved the protocol of the parent study (IRB No. #00113679). Informed consent

to participate was obtained from all study participants at the beginning of each focus-group session, and participants were informed that to ensure confidentiality, their names would be removed from their publishable quotes.

Eighty-four African American men were recruited (MN, n = 31; OH, n = 20; and UT, n = 33). Eligible participants self-identified as Black or African American; were 45-75 years of age; were born in the United States; spoke English; had a working telephone; and lived in MN, OH, or UT. As originally proposed by Rogers et al,⁴³ the theoretically grounded focus-group questions stemmed from a Masculinity Barriers to [Medical] Care Scale developed by the current study principal investigator (PI).

Average per-session attendance was eight; sessions lasted an average of 75 minutes. Settings included libraries, barbershops, churches, and hotel conference rooms—where two to three research team members were present at each site. Each participant received a gift card of \$20 in US dollars and the opportunity to enter a random prize drawing. Demographic information was collected anonymously at the conclusion of each focus group. The study protocol and findings have been published elsewhere.^{41,43}

Data Sources and Process

We reviewed study correspondence and written documentation of procedures used in the parent study. We critically examined the participant recruitment approaches used, evaluated which were successful and unsuccessful, and explored possible reasons for success or lack thereof.

Analysis

In accordance with an instrumental case study, we examined the breadth of the recruitment procedures used and their observed outcomes and organized our findings according to emerging themes. We examined the processes preceding participant recruitment as well as the specific recruitment procedures used. Additionally, we provided the context for each to enhance understanding of the strategies used and delineate the grounds for our conclusions.

RESULTS

The parent study used a multipronged recruitment strategy that included developing culturally tailored marketing materials, collaborating with community-based organizations, and partnering with barbershops and churches.

Recruitment Strategies

Developing culturally appropriate marketing materials.

Culturally tailored marketing materials such as flyers, newspaper ads, and emails were developed that featured pictures of African American men with the caption "Did you know that Black/African American men have a 52% higher chance of dying from colon cancer compared to White men? Help us figure out why over conversation and food!" Participation requirements and incentives were described

and contact information for and a photograph of the lead author (C.R.R., an African American male) provided. These materials were distributed via email, social media, and paid advertising (eg, newspaper ads). [Table 1](#) provides a breakdown of the recruitment materials used in each state; [Figure 1](#) depicts how participants reported hearing about the study.

In Minnesota and Utah, culturally tailored materials were initially used to encourage study registration through a website described in [ref. 45](#) that provided study details and linked to a participant registration form. The website was cocreated by the research team and members of Utah's African American community, and was later approved by the University of Utah IRB for research purposes.

Collaborating with community-based organizations. In Utah, the PI gave a presentation to Community Faces of Utah, a community advisory board comprising leaders from Utah's underserved populations, who provided feedback on the study's marketing materials. Community Faces of Utah's endorsement prompted neighborhood leaders to speak to their constituents about the study.

In Minnesota, the research team collaborated with a community-based health center, Minnesota Community Care, that had an extensive history of collaboration with public health researchers at the University of Minnesota, the PI's former employer. Its community outreach specialist was instrumental in creating informational handbills—small, culturally tailored handheld advertisements—and organizing a mail campaign that reached approximately 600 men who met the focus-group inclusion criteria. A University of Minnesota community engagement manager's connections with the Minnesota Cancer Alliance and Cancer Health Equity Network—two community organizations with which the PI previously held active membership—

widened the effort's community reach. Partnerships with these entities were integral to successful recruitment to the Minnesota focus groups.

The team also partnered with Hennepin Healthcare, an acute-care hospital and clinic system in Minnesota's most diverse county, to send personalized invitations to participate to 1,500 eligible African American men and follow-up with participants until the day before their respective focus groups. Additionally, the team partnered with the International Leadership Institute, a community organization dedicated to strengthening intercultural communities. This partnership led to a successful collaboration between the study team and a respected Baptist church in Minnesota, where one of the focus groups was held.

Partnering with barbershops and churches. Collaboration with a respected barber (A.E.) was instrumental to the success of the Ohio focus groups; he helped to coordinate local recruitment and his barbershop hosted both Ohio groups. This connection stemmed from facilitation by a community engagement director (C.W.) and community research manager (A.M.) from Ohio State University.

In Utah and Minnesota, clergy helped to distribute recruitment posters and flyers to their own and other congregations, announced the focus groups from the pulpit, and provided space for the groups to meet following religious services. In Utah, most focus-group participants were recruited via clergy efforts.

Other Facilitators of Recruitment

Food was offered at each focus-group session and was chosen to avoid exacerbating health disparities; options were provided for individuals who informed the team of dietary restrictions. Many participants stated that they attended the focus groups because they knew food would be served.

TABLE 1. Recruitment Strategies by State

	Minnesota	Ohio	Utah
Recruitment strategies: Culturally tailored materials	Paid ads CuttingCRC website Flyers or informational handbills	Paid ads CuttingCRC website Flyers or informational handbills	Paid ads CuttingCRC website Flyers or informational handbills
Recruitment strategies: Community outreach	Minnesota Community Care (community outreach specialist, mailed letter campaign) Minnesota Cancer Alliance Cancer Health Equity (community engagement manager) Clergy (pastor) International Leadership Institute (Director)	Barbershop (respected barber) Ohio State University (community engagement director, community research manager, mailed letter campaign)	Clergy (pastor)
Settings	Church conference room Hotel conference room Library	Barbershop	Church conference room Library
No. focus groups	4	2	5
No. participants	31	20	33

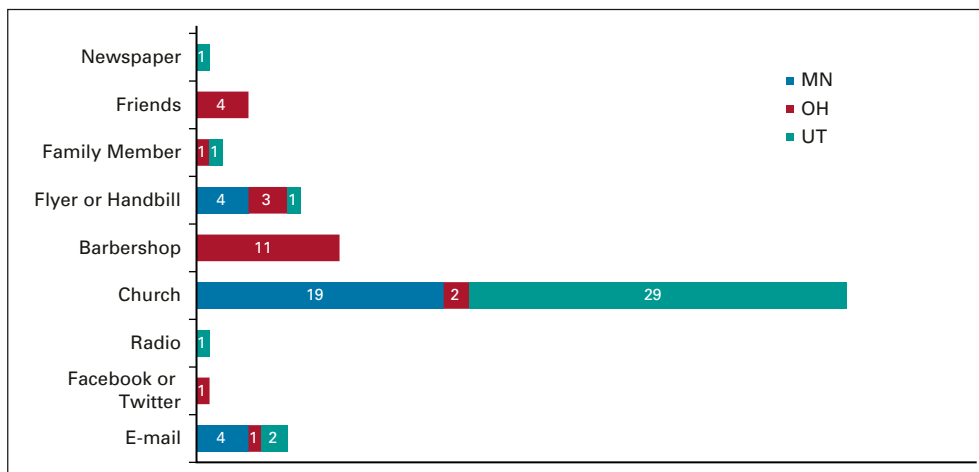


FIG 1. Marketing methods by which participants heard about the study, by state. MN, Minnesota; OH, Ohio; UT, Utah.

Some of the best-attended focus groups were held in community barbershops or predominantly African American–serving churches immediately following Sunday services. These locations provided participants with a familiar setting where they were surrounded by trusted individuals, which may have increased their level of comfort in addressing potentially uncomfortable research questions.

Barriers to Recruitment

In Utah and Minnesota, challenges to finding suitable venues for the focus groups were a barrier. Initially, the sessions were held in libraries, but this proved difficult to sustain. Despite efforts to book months in advance, libraries had limited available meeting space. Some libraries would not allow food in the meeting space. Additionally, hours were curtailed on Saturdays, the day most focus-group participants were available.

Transportation difficulties were another barrier. Many participants' ability to attend was limited by distance or lack of transportation. Free public parking was limited in the urban locations most accessible to the target population. The research team did not provide participants with pre-paid parking passes, a potential failed opportunity that might have alleviated this barrier.

The initial strategy to have participants in Minnesota and Utah register via the website described in [ref. 45](#) was less successful than anticipated. Many men who provided phone numbers to be contacted by the research team never answered calls. Some phone numbers lacked voice-messaging service. Some men did not provide email addresses. Text messaging was not used because of high cost. Paid-media ads that were effective in previous studies conducted by the same research team⁴⁶ were less fruitful this time, yielding just three of 84 participants (3.7%) at a disproportionately high cost.

Reliance on churches and clergy, although an important contributor to recruitment success, also presented some

barriers. Many men attended church with their families. Scheduling the focus groups after church services resulted in transportation complications for some families and may have dissuaded some men from participating. Also, since the churches carried out extensive outreach promoting the focus groups, nonreligious African American men may have been deterred from participating, denying us access to an important subpopulation.

DISCUSSION

We describe the features of a qualitative CRC screening promotion study conducted across three states that resulted in exceptional enrollment of African American men. Our study supports the existing literature on the importance of trust between communities and research teams for the successful recruitment of African American men to research studies.^{9,10,44,47,48} Our experience further illustrates that medical mistrust remains a barrier to research participation by African American men.

Partially because of medical mistrust, some African American men were hesitant to participate in our no-known-risk study. When the team attempted to interest barbershops in Utah that predominantly serve African American men in hosting focus groups, barbers were apprehensive, cautious, and often disconnected the call after researchers said they were working with an NCI-designated cancer center. One barber mentioned the Tuskegee experiment and medical system mistrust as deterrents, whereas others acknowledged that recruitment of African American barbers would be difficult because they do not trust doctors.

To counter these negative perceptions, before and after calling the barbershops, the African American male PI and a White male research assistant visited the shops to get haircuts. All barbershops that gave the two research team members haircuts were willing to share information and discuss partnership opportunities, stressing the importance

of relationship building to ameliorate medical mistrust among African American men.

Culturally tailored marketing materials (ie, paid-media ads, flyers, and posters) and the website described in [ref. 45](#) were less successful in achieving interest in the study and trust in the research team than they had been in the team's previous research.^{49,50} The CuttingCRC website was initially chosen as a primary recruitment strategy because African Americans outpace all other racial and ethnic groups in smartphone use.⁵¹ However, compared with demographically similar White men, older African American men may have been less likely to have broadband service at home or to complete our online registration survey.⁵²

Social media may have been a more fruitful outreach method had it been more formally used. Recruitment via social media has been effective with historically hard-to-reach populations including young cancer survivors⁴⁶ as well as in smoking cessation research,⁵³ and HIV vaccine clinical trials,⁵⁴ among others. Social media can creatively reach populations that may not engage in conventional health services.⁵⁵ In future studies, the use of these platforms may serve to break down barriers and aid recruitment.

Partnering with leaders and gatekeepers from churches and barbershops has been identified as an effective strategy for engaging minority participants in health interventions; these community spaces have proven to be excellent locations to deliver interventions to manage conditions such as hypertension and diabetes.^{30,56-59} Reliance on community relationships, including those with churches and other local organizations, is common in recruitment efforts.^{4,8,30,43} In the parent study, research team members' relationship building through attending worship services and engaging with congregants facilitated conducting focus groups in churches following services. Endorsements by local barbershops also boosted focus-group participation by establishing a basis of trust and attesting to the research team's commitment to the community.

Food was an important facilitator of recruitment. This incentive served to increase attendance—many participants commented that they attended because food was offered—and did not seem to adversely affect either participation or the thoughtfulness of discussions. Persistence in the effort to find venues that allowed food service ultimately proved crucial to recruitment success. The provision of culturally appropriate food that does not exacerbate health disparities and is sensitive to dietary restrictions can help focus-group discussions feel more inviting and may help to overcome barriers to trust by reinforcing that the researchers see the participants as people rather than as research subjects.^{5,9}

The parent study did not measure the influence on recruitment of the monetary incentive and random prize drawing. However, considering how incentives have previously supported clinical trial recruitment and retention,⁶⁰

they are potential recruitment facilitators that should be used to demonstrate that participants' time and opinions are valuable. Future researchers can enhance recruitment by offering both food and monetary incentives and using study locations that permit food service.

Another critical aspect of successful recruitment efforts was focus-group location. Considering both possible economic burdens and participants' comfort levels, it was important that the groups meet in locations convenient for the participants. Some of the best-attended focus groups took place in community barbershops or following services in predominantly African American churches. Possible reasons for this are that in these locations participants felt at ease among people they trusted, which encouraged them to engage. Location convenience may also have eased economic burdens, which as our study—consistent with previous published studies—found were barriers to participation^{5,21,61} (eg, lack of transportation and absence of free parking).

The research team's involvement of community leaders was based on the PI's previous successful recruitment efforts as well as on community feedback received before the launch of the parent study. Demonstrating true commitment to reducing health inequities and intentionally fostering long-term relationships with communities is key for future researchers and clinical trial investigators aiming to deploy similar efforts. Overcoming barriers can be challenging, and adjustments to initial strategies may be necessary. Long-term relationships with communities also may permit researchers to introduce new recruitment strategies if necessary.

Trustworthiness remains a key factor in both recruitment and study participation. Griffith et al⁶² qualitatively examined the influence of trustworthiness in the conduct of medical research, concluding that establishing trust goes beyond overcoming perceived medical mistrust. In particular, participants consider researchers' knowledge and passion for the research project when determining trustworthiness. Our PI's expertise, knowledge, and passion were evident in his dedication to the research despite the time commitment required to invest in community relationships. Also (as in the team's previous studies⁴¹), the PI conducted follow-up community dialogues (with free food and free parking) to discuss focus-group findings. These dialogues served to both augment community trust and obtain the community's feedback on next research steps.

Finally, minority communities remain largely skeptical of researchers' motives and goals, especially when researchers are exclusively White.⁴¹ The mindset that researchers and clinical trial investigators do not prioritize minority communities' best interests perpetuates the mistrust stemming from the historical mistreatment of African Americans in medical research.¹²⁻¹⁸ Focus-group participants commented that including the face of the lead

author—an African American man with a doctoral degree—in culturally tailored flyers played a critical role in encouraging trust.

Several limitations are worthy of note. First, recruitment strategies were solely focused on African American men. The importance of this unique focus is reinforced, however, by a recent review of participation by minorities and women in oncology clinical trials,⁶³ which found that African Americans remain underrepresented in these research studies. Second, our study design centered on recruitment to focus groups rather than to cancer clinical trials. Medical mistrust and fear-for-safety barriers may be more common in recruitment for clinical studies in which new drugs or diagnostic procedures are being tested. Greater understanding of such barriers is needed to better inform recruitment strategies for such studies. Finally, qualitative studies such as this one typically use a face-to-face data-collection approach that depends on participants' willingness to share information and experiences and thus may

limit data completeness.⁶⁴ Conversely, the parent study's success in recruiting participants into 11 focus groups demonstrates the strength of the recruitment process.

In conclusion, this study advances the literature on the recruitment of hard-to-reach African American men by (1) reinforcing the importance of gaining the support and active involvement of community leaders and (2) identifying the most successful settings in which to conduct qualitative research with African American men.

To overcome barriers to the recruitment of African American men into medical research studies, investigators should strive to determine the level of medical mistrust and trustworthiness barriers present, and should consider adopting strategies such as expanding recruitment to more than one state and building relationships with community leaders. The successes and lessons learned from this study may help to inform minority recruitment strategies for future clinical and community-based research.

AFFILIATIONS

¹Department of Family and Preventive Medicine, University of Utah School of Medicine, Salt Lake City, UT

²Population Sciences Department, The Ohio State University Comprehensive Cancer Center, Columbus, OH

³A Cut Above the Rest Barbershop, Columbus, OH

⁴International Leadership Institute, Minneapolis, MN

⁵Mixed Methods Program and Department of Family Medicine, University of Michigan Medical School, Ann Arbor, MI

CORRESPONDING AUTHOR

Charles R. Rogers, PhD, MPH, MS, MCHES, Department of Family and Preventive Medicine, University of Utah School of Medicine, 375 Chipeta Way, Suite A, Salt Lake City, UT 84108; Twitter: @crrogersPhD; e-mail: Charles.Rogers@utah.edu.

DISCLAIMER

The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH, University of Utah, or Huntsman Cancer Institute.

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AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

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AUTHOR CONTRIBUTIONS

Conception and design: Charles R. Rogers, Michael D. Fetters

Financial support: Charles R. Rogers

Administrative support: Alicia McKoy

Provision of study materials or patients: Alicia McKoy, Al Edmonson

Collection and assembly of data: Charles R. Rogers, Phung Matthews, Nathan Le Duc, Alicia McKoy, Al Edmonson

Data analysis and interpretation: Charles R. Rogers, Phung Matthews, Ellen Brooks, Nathan Le Duc, Chasity Washington, Michael D. Fetters

Manuscript writing: All authors

Final approval of manuscript: All authors

Accountable for all aspects of the work: All authors

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AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

Barriers to and Facilitators of Recruitment of Adult African American Men for Colorectal Cancer Research: An Instrumental Exploratory Case Study

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Michael D. Fetters

Honoraria: Medical Cyberworlds Inc

Other Relationship: Medical Cyberworlds Inc

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